

### **REMARKS**

The Examiner's Action mailed on May 20, 2004, has been received and its contents carefully considered.

In this Amendment, Applicant has editorially amended the specification and editorially amended claims 1, 5, 6, 7, 8, 12, 13 and 14. In amending these claims, special care has been taken to ensure that the scope of the original claims has not been changed. Claims 17-21 have been added to the application. Claims 1, 8 and 17 are the independent claims, and claims 1-21 are pending in the application. For at least the following reasons, it is submitted that this application is in condition for allowance.

Initially, it is noted that this Amendment increases the total number of claims pending in the application to a total of 21, thus requiring an excess claim fee of \$18.00 for one claim in excess of 20. Payment of this amount is attached. Should the payment be missing, or should additional fees be required, please charge the same to our Deposit Account No. 18-0002 and advise the undersigned counsel accordingly.

The Examiner's Action has objected to the disclosure for an informality. In response thereto, the informality specifically pointed out by the Action has been corrected. Moreover, other editorial changes have been made. It is requested that this objection be withdrawn.

The Examiner's Action has rejected claims 1-16 as being indefinite. In response thereto, the matters specifically pointed out by the Examiner's Action

have been corrected. Further, editorial changes have been made to the claims to improve the readability of the claims. It is submitted that the claims comply with all official provisions, and it is requested that this rejection be withdrawn.

The Examiner's Action has rejected claims 1, 2 and 7 as being anticipated by *Schwiebert et al.* (USP 5,880,017). It is submitted that these claims are *prima facie* patentably distinguishable over the cited reference for at least the following reasons.

It is well settled that a reference may anticipate a claim within the purview of 35 U.S.C. § 102 only if all the features and all the relationships recited in the claim are taught by the referenced structure either by clear disclosure or under the principle of inherency.

Applicant's independent claim 1 is directed to a ball electrode forming method which includes, *inter alia*, providing a mask which has an upper surface, a lower surface, and a plurality of openings that extend from the upper surface to the lower surface. An area of each of the openings at the lower surface is larger than an area of the openings at the upper surface. This claimed configuration is not disclosed by the cited reference.

In contrast, *Schwiebert et al.* disclose a method of bumping substrates by contained face deposition which includes, *inter alia*, providing a mask 326 which has mask apertures 330 formed therein. This reference discloses that the apertures 330 can be cylindrical, or non-cylindrical, or provided with non-vertical side walls such as tapered apertures for an improved release. The Examiner's

Action contends that since this reference discloses that the mask apertures can include non-vertical walls, such as tapered apertures for improved release, that this reference thus discloses Applicant's claimed invention. However, the Examiner's attention is respectfully directed to the fact that claim 1 does not recite that the openings are tapered or have non-vertical walls. Instead, this claim recites that an area of each of the openings at the lower surface of the mask is larger than an area of the openings at the upper surface of the mask. The cited reference does not disclose this feature. Moreover, even if the apertures 330 disclosed by this reference did have a tapered configuration, this would not inherently result in an area of the openings at the lower surface being larger than an area of the openings at the upper surface, as required by claim 1. That is, the apertures 330 could have a portion that is tapered, while still having upper and lower openings that are the same size, which would be in contrast to the recitation found within Applicant's independent claim. As such, it is submitted that Applicant's independent claim 1, and dependent claims 2 and 7, have not been anticipated by the cited reference. It is thus requested that this rejection be withdrawn and that these claims be allowed.

It is noted with great appreciation that the Examiner's Action considers the subject matter of claims 3-6 and 8-16 as being allowable over the art of record. Because claim 8 has been amended to rectify the indefiniteness issues raised by the Examiner's Action, this claim has been placed into condition for allowance. Moreover, the claims that are dependent from independent claim 1 are submitted

to be patentably distinguishable over the cited references for at least the same reasons as independent claim 1, from which these claims depend, as well for the allowable features found within these dependent claims.

Applicant has also added independent claim 17 and dependent claims 18-21. These claims are submitted to be patentably distinguishable over the cited reference for reasons similar to those given above with respect to independent claim 1. It is requested that these claims be allowed.

It is submitted that this application is in condition for allowance. Such action and the passing of this case to issue are respectfully requested.

Should the Examiner feel that a conference would help to expedite the prosecution of this application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

Respectfully submitted,



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Date

RHB:vm

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Please charge any further  
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AMENDMENT

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